

## REMARKS

With the cancellation of claim 33 without prejudice herein, claims 21 to 32 and 34 to 40 are pending in the present application. Applicants respectfully submits that claims 21 to 32 and 34 to 40 are patentable for the following reasons.

### **I. Rejection of Claims 21 to 32**

Claims 21 to 32 were rejected under 35 U.S.C. §102(e) as allegedly being unpatentable over United States Patent 6,071,822 ("Donohue '822") in view of United States Patent 6,890,863 ("Donohue '863"). Applicants further note that the Detailed Action section of the Office Action indicates that the rejection of claims 21 to 32 is under 35 U.S.C. §103(a). For completeness, Applicants will respectfully address the rejection of claims 21 to 32 under both 35 U.S.C. §102(e) and 35 U.S.C. §103(a).

Claim 21 relates to a method for anisotropically etching structures into a substrate positioned in an etching chamber, comprising: providing an etching mask on a silicon substrate positioned in the etching chamber; and providing the etching chamber at least intermittently with an etching gas and at least intermittently with a passivation gas, wherein the passivation gas is supplied to the etching chamber in cycles each having a time period between 0.05 second and 1 second.

Applicants note that claim 21 recites the step that the passivation gas is supplied to the etching chamber in cycles each having a time period between 0.05 seconds and 1 second. Donohue '822 relates to an etching process for producing substantially undercut free silicon on insulator structures. Donohue '822 does not disclose or suggest any method step or structure having the capability wherein a passivation gas is supplied to the etching chamber in cycles each having a time period between 0.05 seconds and 1 second. The Office Action admits this defect by stating that Donohue '822 does not disclose or suggest this feature.

The attempted addition of the Donohue '863 reference does not disclose or suggest the feature of the passivation gas being supplied to the etching chamber in cycles having a time period between 0.05 seconds and 1 second. The Donohue '863 reference does not provide a configuration or

method of using alternating etching steps and passivating steps. Applicants respectfully note that as provided in Donohue '863 column 10, lines 7 to 22, a pulse of gaseous fluorocarbon is injected in the range of one second to 30 seconds. Selectivity is increased by the introduction of the fluorocarbon gases, however etching is continued. Deposition of passivating layers does not occur.

Applicants respectfully submit that a person skilled in the art would not perform the method as provided in claim 21 as any hypothetical combination of such documents would not disclose or suggest the features of claim 21, namely that the passivation gas is supplied to the etching chamber in cycles each having a time period between 0.05 seconds and 1 second. Applicants respectfully submit that any anticipation rejection or obviousness rejection contained in the Office Action pursuant to Section 1 of the Office Action should be withdrawn.

Claims 22 to 29 depend from claim 21 and therefore include the features of claim 21. Applicants respectfully submit that claims 22 to 29 are patentable for at least the reasons presented above in relation to claim 21.

Claim 30 has been amended, with the features of claim 33. As noted in Section 3 of the Office Action Section 3, claim 33 contains allowable subject matter. As the patentable subject matter of claim 33 has been incorporated into independent claim 30, applicants respectfully submit that claim 30 is allowable.

Claims 31 and 32 depend from claim 30 and therefore include all of the features of claim 30. Applicants respectfully submit that claims 31 and 32 are patentable for at least the reasons presented above in relation to claim 30.

## **II. Rejection of Claims 31 and 32**

Claims 31 and 32 were rejected under 35 U.S.C. §102(e) as allegedly being unpatentable over United States Patent 6,071,822 ("Donohue '822") in view of United States Patent 6,890,863 ("Donohue '863") as applied to "claim 10" above and in further view of United States Patent 6,431,113 ("Puech"). Applicants further note that the Heading for Section II of the Office Action indicates that the rejection for claims 31 and 32 are under 35 U.S.C. §103(a).

Applicants will respectfully address the rejection of claims 31 and 32 under both 35 U.S.C. §102(e) and 35 U.S.C. §103(a) for completeness.

Applicants respectfully submit that claim 10 has previously been cancelled and Applicants respectfully note this typographical error. Applicants submit that claim 30 is the independent claim for dependent claims 31 and 32 and therefore Applicants will address the rejection as based on independent claim 30.

As provided above, independent claim 30 has been amended such that the patentable features of claim 33 have been incorporated. Claim 30, therefore, now includes patentable subject matter as identified in Section III of the Office Action. Claims 31 and 32 depend from claim 30 and therefore include the patentable features of claim 30. Applicants respectfully submit that claims 31 and 32 are patentable for the reasons presented above in relation to claim 30.

### **III. Allowable Subject Matter**

Claims 33 to 39 have been identified as objected to as being dependent upon a rejected base claim but would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims.

Applicants have amended claim 30, as provided above, to include the patentable features of claim 33. Applicants submit that claim 30 is allowable. Claims 34 to 39 ultimately depend from claim 30 and therefore include all of the features of claim 30. Applicants respectfully submit that claims 34 to 39 are patentable as they depend from allowable claim 30.

**IV. Conclusion**

In view of the foregoing, it is respectfully submitted that all pending claims of the present application are now in condition for allowance. Prompt reconsideration and allowance of the present application are therefore earnestly solicited.

Respectfully submitted,

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